

SPLIT 1

DART AEROSPACE LTD	Work Order:	24070
Description: Saddle billet	Part Number:	D6101-007
Drawing: D6101 Rev. A	Qty:	100

Step	Location	Procedure	By	Date	qty
1	EXPEDITING	Open W/O	U	05-08-12	100
2	PURCHASING	Issue P/O: 2008971 a) Description: Alluminum billet b) 7.750" x 8.250" x 2.50" thick c) Tolerance on all dimensions are +0.030"/-0.000" d) Grain direction along 7.750" length e) Material: 7075-T7351 (QQ-A-250/12) <b>Material certification required</b>	U	05-08-12	100
3	RECEIVING	Receive & Inspect for transit damage <b>Ensure certification are attached</b>	U	6/2/12	50
4	QC	Inspect level 6 Check certification to Dwg D6101 for compliance	U	06/02/15	50
5	STORES	Identify & stock	U	06-01-16	50
6	EXPEDITING	Close W/O Cost / part	U	06/02/16	50

Rev	Date	Change	Revised By	Approved
A	01.05.04	New Issue	EC	EC

RELEASED

EC 01-05-16

KF  
03.06.05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: ☒ Date: 04/01/16

NOTE: Date & initial all entries

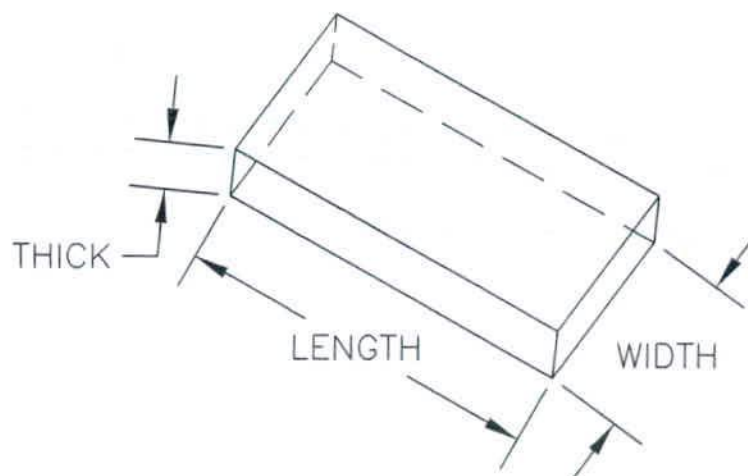
QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_





DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED S	DRAWING NO. D6101	Rev. A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

## SPECIFICATION CONTROL DRAWING



RELEASED  
01.04.23 CP

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED  
SUBJECT TO  
WITHOUT NOTICE  
WORK ORDER  
NO. 24070

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

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# Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Aug 12, 2005  
11:19 am

Work Order No	: 0024070	Department Code:	
Project Name	: D6101-007	Burden Flags	: NNNNNNNN
Project For	: WK540	WO Status	: Open
Work Order Type	: Main	Invoice State	: Not Invoiced
Main WO Number	:	Invoice Date	:
House Part Number	: D6101-007	Invoice Number	:
Description	: 7075-T7351 8.25X7.75X2.5	Invoice Amount	: 0.00
Manufactured	: Yes		
Amount Req'd	: 100	Order Entry No	:
Amount Done	: 0	OE Value	: 0.00
Start Date	: 08-12-05		
Est Finish Date	: 10-01-05	Est Margin	: 0.000%
Act Finish Date	:	Actual Margin	: - 0.000%
Drawings Req'd	: No		
Ok for Approval	:		
Approval Rec'd	:	\$0 Posted to Finished Goods	

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	: 0.00	0.00	0.00	0.00	0.00
Engineering Hours	: 0.00	0.00	0.00		
Engineering Cost	: 0.00	0.00	0.00	0.00	0.00
Production Hours	: 0.00	0.00	0.00		
Production Cost	: 0.00	0.00	0.00	0.00	0.00
Packaging Hours	: 0.00	0.00	0.00		
Packaging Cost	: 0.00	0.00	0.00	0.00	0.00
OverHead Hours	: 0.00	0.00	0.00		
OverHead Cost	: 0.00	0.00	0.00	0.00	0.00
CNC Hours	: 0.00	0.00	0.00		
CNC	: 0.00	0.00	0.00	0.00	0.00
Misc. Hours	: 0.00	0.00	0.00		
Misc.	: 0.00	0.00	0.00	0.00	0.00
Burden	: 0.00	0.00	0.00		
Total Cost	: 0.00	0.00	0.00		
Margin	: 0.000	0.000			
Selling Cost	: 0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	: 0.00	0.00
Profits/(Loss)	: 0.00	0.00



# CERTIFIED INSPECTION REPORT

**Alcoa Inc.**

PITTSBURGH, PA DAVENPORT WORKS

Ship From: RIVERDALE, IA.

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet, the applicable requirements described therein, including any specifications forming a part of the description and that samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.  
Per:

*Mark J. Vrabiec*

Mark J. Vrabiec  
Director of Manufacturing Davenport Works

*Kenton P. Young*

Kenton P. Young  
Quality Assurance Manager

573890

Ship Date

2006-01-20

P.O. No./Govt Contract No.

CH1889

19028

B.L. No.

02084

Invoice No.

54800

Customer

C&B-WALLINGFORD

Alcoa No. Item

DS-91531-1

Page 0

TOTAL COPIES: 2. WITH SHIPMENT

COPPER AND BRASS SALES  
22355 WEST ELEVEN MILE RD  
SOUTHFIELD, MI 48034

COPPER & BRASS SALES INC  
WALLINGFORD BRANCH  
5 STERLING DRIVE  
WALLINGFORD, CT 06492





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CH1889

C&B-WALLINGFORD

Ship From: RIVERDALE, IA.

Ship To: COPPER & BRASS SALES INC  
WALLINGFORD BRANCH  
5 STERLING DRIVE  
WALLINGFORD, CT 06492

## Item Description

2.500 IN TK X 60.5 IN W X 157.5 IN LN (N) A/T 7075-  
T7351 RECTANGLE MILL FINISH, USI 3MM DEAD ZONE REQ'D BOTH SIDES,  
SAWED {{ P/N 091557-9 }}. PER AMS-QQ-A-250/12 & EXCEPT MARKING AMS-  
STD-2154 & EXCEPT MARKING MMS159 REV N &  
EXCEPT MARKING ASTMB209 REV 04 & EXCEPT  
MARKING BSS7055 REV A & EXCEPT MARKING  
AMS4078 REV F USI PER PS21211 REV J MARKING PER  
PS16120 REV G ULTRASONIC INSPECTION PE  
ASTMB594 REV 02 ((MARKED)) INTERLEAVED MAX  
GROSS SKID WGT: 5000 LB QUAN TOL +/-30 %  
USI CL A 3 MM CQR 0162473 REV 01 CUST REQ 06-01-  
01 \*\*\* W/E 06-01-07 \*\*\*

Num	Package Ticket	Lot	Weight	Quantity	UOM	Pc Id/Serl
1	367454	611671	2433	1	PC	
2	367470	611671	2424	1	PC	
3	367471	611671	2410	1	PC	
4	367484	611671	2432	1	PC	
			9699	4		

Notes for CQR: 0162473.1

PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12. PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154. THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.

CQR: 0162473.1 -Specification Limits

Temp	Dir	UTS	TYS	EL4D
T7351	Long Transv.	Max	KSI	PCT
		Min	66.0	52.0
T7351	Elec. Cond. (EC)	% MIN	38.0	PCT



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PITTSBURGH, PA

DAVENPORT WORKS

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Per:

*Mark J. Vrabec*

Mark J. Vrabec  
Director of Manufacturing Davenport Works

*Kenton P. Young*

Kenton P. Young  
Quality Assurance Manager

573890

Ship Date

2006-01-20

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Ship From: RIVERDALE, IA.

Alcoa No. Item

DS-91531-1

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CQR: 0162473.1 -Specification Limits (cont.)

Chemical Composition		SI	FE	CU	MN	MG	CR	ZN	TI	Other Each	Other Total	Aluminum
Alloy 7075	Max	.40	.50	2.0	.30	2.9	.28	6.1	.20	.05	.15	
	Min			1.2		2.1	.18	5.1				REMAIN

Lot: 611671 -Mechanical, Physical, Metallography, Quantometer Results

Tmpr	Dir	No. Test	UTS			TYS			EL4D			
			KSI	KSI	PCT	KSI	KSI	PCT	KSI	KSI	PCT	
T7351	Long Transv.	3	Max	71.3	60.1	10.6						
			Min	70.9	59.8	10.5						
T7351	Elect Cond	%IACS	40.0	40.1	40.2	PCT						

Cast Number	Chemical	SI	FE	CU	MN	MG	CR	ZN	TI
H9295041	Actuals	.07	.28	1.6	.03	2.5	.19	5.6	.02





# COPPER AND BRASS SALES

## MATERIAL TYPE

### ALUMINUM ALLOYS WITH LOW BERYLLIUM

#### PRODUCT DESIGNATION

2014 2024 2224 2324 7050 7075 7150 7175 7475  
ALUMEC 89 ALUMEC 99 QC-7

## "WARNING"

SMALL CHIPS, FINE TURNINGS AND DUST MAY IGNITE READILY. EXPLOSION POTENTIAL MAY BE PRESENT WHEN: DUST OR FINES ARE DISPERSED IN THE AIR; FINE, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH CERTAIN METAL OXIDES; OR, CHIPS, FINES, DUST OR MOLTEN ALUMINUM ARE IN CONTACT WITH WATER OR MOISTURE. KEEP AWAY FROM IGNITION SOURCE. USE EXPLOSION-PROOF VENTILATION. KEEP MATERIAL DRY.

THIS PRODUCT CONTAINS BERYLLIUM AND COPPER. INHALING BERYLLIUM DUST OR FUMES MAY CAUSE CHRONIC BERYLLIUM DISEASE (CBD), A SERIOUS CHRONIC LUNG DISEASE IN SOME INDIVIDUALS. BERYLLIUM IS A CANCER HAZARD; OVER TIME CBD AND CANCER CAN BE FATAL, TARGET ORGAN IS PRIMARILY THE LUNG. INHALING LARGE AMOUNTS OF COPPER, MAGNESIUM OXIDE, MANGANESE OXIDE, AND ZINC OXIDE FUMES OR DUST MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS. CHRONIC OVEREXPOSURE TO COPPER MAY CAUSE THICKENING OF THE SKIN; AND SKIN, TEETH, AND HAIR DISCOLORATION. CHRONIC OVEREXPOSURE TO MANGANESE DUST CAN CAUSE CENTRAL NERVOUS SYSTEM DAMAGE, SCARRING OF THE LUNGS AND REPRODUCTIVE HARM IN MALES. TARGET ORGAN IS PRIMARILY THE LUNG, BUT REPEATED HIGH EXPOSURE CAN ALSO AFFECT THE LIVER. CHRONIC OVEREXPOSURE TO IRON OXIDE DUST/FUME MAY CAUSE LUNG SIDEROSIS. CHRONIC OVEREXPOSURE TO SILICON DUST CAN CAUSE CHRONIC BRONCHITIS. OVEREXPOSURE TO AMORPHOUS SILICA CAN CAUSE DRYING OF THE MUCOUS MEMBRANES OF THE EYES, NOSE, AND THROAT.

THIS PRODUCT ALSO CONTAINS NICKEL AND CHROMIUM COMPOUNDS. INHALATION OF NICKEL DUST OR FUME MAY RESULT IN INFLAMMATION OF THE RESPIRATORY TRACT AND CAUSE NASAL AND/OR LUNG CANCER. NICKEL HAS BEEN IDENTIFIED AS A POTENTIAL HUMAN CARCINOGEN. EXPOSURE TO CHROMIUM DUST OR FUME MAY CAUSE METAL FUME FEVER WITH FLU-LIKE SYMPTOMS AND KIDNEY AND LIVER DAMAGE. UNDER HIGH TEMPERATURES, HEXAVALENT CHROMIUM MAY BE PRODUCED, IF IN THE INSOLUBLE FORM, IT IS A CONFIRMED HUMAN CARCINOGEN. (CALIFORNIA PROPOSITION 65).

IF COATED WITH OIL, MAY CAUSE SKIN IRRITATION/DERMATITIS BY CONTACT. WELDING FUME IS LISTED AS A POSSIBLE CARCINOGENIC TO HUMANS.

READ THE ALUMINUM/ALUMINUM ALLOYS MATERIAL SAFETY DATA SHEET(MSDS) ON FILE WITH YOUR EMPLOYER BEFORE WORKING WITH THIS MATERIAL

- \* If processing or recycling produces particulate, use exhaust ventilation or other controls designed to prevent exposure to workers. Examples of such activities include melting, welding, grinding, abrasive sawing, sanding and polishing. Any activity which abrades the surface of this material can generate airborne particulate. Use respiratory protection (P100, quantitative fit testing required) if exposures exceed the permissible limits.
- \* The Occupational Safety and Health Administration (OSHA) have set mandatory limits on occupational exposures.
- \* Aluminum, in solid form and as contained in finished products presents no special health risk.
- \* Sold for manufacturing purposes only. This product can be recycled; contact your sales representative.

The Occupational Safety and Health Administration require employers to provide training in the proper use of this product.

For additional information, call or write to Copper and Brass Sales, 22355 West Eleven Mile Road, Southfield, MI 48034, telephone 248-233-5600, or visit our web site @ [www.copperandbrass.com](http://www.copperandbrass.com).

